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Revision History:

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Revision	Date	Description	Published/ Revised By	Approved By
I0	15 Sep.2020	<p>The main revision content:</p> <ol style="list-style-type: none"> 1.Adding the applicable factory area of BEM-1-06 standard ; 2.Adding the Control of Benzidine dye,1,2,4-Trichlorobenzene、 Perfluorooctane sulfonyl fluoride ect in Table 1; 3.Adding the production, packaging and transportation process will be in contact with the product, PVC material is prohibited for wrapping; 4.Adding the control of four Phthalates in packaging materials; 5.Adding GB VOC control over inks, cleaning agents, coatings and adhesives; 6.Adding the third party test reports are not allowed for mixed testing; 7.Adding controlled substances in the process in Table 2. 	Jianlong Du	Felix Teng
J0	1 Nov. 2021	<ol style="list-style-type: none"> 1. Modify the control limits of PFOA, four phthalates, tetrabromobisphenol A, perfluorooctane sulfonate, dibutyltin compound, dioctyltin compound specific organophosphorus and bisphenol A in Table 1, and delete some PAHs controlled substances; 2. Add the control requirements of phthalates for packaging materials in Table 1, and add 112-131 substance control items; 3. Amend the name of substance in item 14 of Table 1 as vinylidene tetrachloroethylene; 4. Add the control of using plasticizer for materials with TCO requirements in Table 2; 5. Polychlorinated biphenylfuran and POLYchlorinated biphenyldiol were deleted from Table 3, and 18-24 items of Level 3 controlled substances were added; 6. Add reference test methods for polycyclic aromatic hydrocarbons (PAHs) and red phosphorus in Appendix II; 7. Update appendix IV examples of laws and regulations referred to in the formulation of this standard; 8. Update schedule V-C hexabromocyclododecane (HBCDD); 9. Update the REACH SVHC list. 	Jianlong Du	Felix Teng

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K0	2022-9-22	<ol style="list-style-type: none"> 1. The scope of application is increased to TNN; 2. Add mineral oil aromatic hydrocarbons (MOAHs) containing 1 to 7 aromatic rings, mineral oil saturated hydrocarbons (MOSHs) containing 16 to 35 carbon atoms and polyvinylidene chloride (PVDC); add methanol to level 3 control; 3. Update the polybrominated diphenyl ethers (PBDEs), expanded polystyrene (EPS), tetrachlorobenzene and its isomers and perfluorooctane sulfonic acid fluoride (PFOSF) to be banned; modify other chlorine/bromine use description of flame retardant and bisphenol A; modify benzidine-based dyes to benzidine-based dyes and their salts; modify pentachlorothiophenol (PCTP) to 1000ppm; modify the serial number of Appendix V-C and the Chinese description of PFAS ; 4. Perfluorohexanoic acid and its salts and related substances (PFHxA), long-chain (C9-C20) perfluorocarboxylic acids (PFCAs) and its salts and related substances are changed from level 3 to level 1; 5. Update the appendix V-F: Polycyclic Aromatic Hydrocarbons (PAHs), appendix II: Reference Test Methods for Managed Substances add the test methods, appendix IV: Reference for Standard Development Examples of laws and regulations; 6. Delete the p-diaminobiphenyl and its compounds, sulfur and its compounds, bis (hexachlorocyclopentadiene) cyclooctane (DP) in Table 3; 7. Update the REACH SVHC list and reduction plan. 	Ping Deng	Felix Teng
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L0	2023/10/13	<ol style="list-style-type: none"> 1. Revision of polybrominated biphenyls (PBBs) for all uses: prohibition; 2. The single limit value of specific phthalates for all uses is revised to 900ppm, and a total of 15 substances with serial numbers 24-38 are added in Schedule V-A; 3. To amend the prohibition of arsenic and its compounds except semiconductors, copper foils and PCB boards and other uses mentioned above; 4. Added CAS number for MCCP (C14-17) and n-hexane; 5. Perfluoroheptanoic acid was added as a controlled substance, and the sequence of perfluorinated controlled substances was adjusted to number 34~42; 6. Revise the use scope and limit requirements of nonylphenol and its compounds, and add Schedule V-K to the list of specific substances; 7. Revise the use scope and limit requirements of bisphenol A and diethylene glycol butyl ether; 8. Revise halogenated diphenyl methane from level 3 control to level 1 control; 9. Revise the application scope of isopropylated triphenyl phosphate PIP 3:1; 10. Revision of the limit requirements for MOAHs and MOSHs; 11. Add 134-150 serial number substances in Table 1; 12. Table 2 Revised limit requirements for serial number 1 13. Table 3 Adjusting the serial number of substances and adding the serial number 20~21; 14. Modify Appendix I: RoHS Exemption List; 15. Two new substances are added to Schedule V-H; 16. Added Schedule V-J; 17. Update the REACH SVHC list. 	Ping Deng	KS Dong
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M0	2024/10/28	<p>一、 List of prohibited substances:</p> <ol style="list-style-type: none"> 1. Add toluene, phosphine, triethylene glycol dimethyl ether, trichlorfon Perfluorodecanoic acid and its sodium and ammonium salts, DOTE, DOTE&MOTE, reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP), siloxanes D4/D5/D6 and methoxychlor's control scopes and threshold limits; 2. Add control scopes and threshold limits for SDPA, DIHP, and dimethyl phthalate, delete substance control in Table 3; 3. Update control scopes and threshold limits for arsenic and its compounds, cobalt chloride, PFOS and related substances; 4. Update control threshold limits for DMF, musk xylene, 2, 4-dinitrotoluene, trichlorobenzene, benzyl chloride, perfluorooctanoic acid (PFOA) and its salts, perchlorate, nickel and its compounds, brominated dioxins furans and dioxins furans; 5. Update control scopes for bisphenol A and long-chain (C9-C20) perfluorocarboxylic acids (PFCAs) and their salts, related substances and LCCP (C18-28); 6. Add appendix for specific phthalate V-A and specific azo compounds V-D, PAHs V-F, specific organophosphorus compounds V-G, cobalt chloride V-H, N, N' - dimethylphenylenediamine V-L, Mineral oil V-M controlled substances; 7. Add control for four ortho benzenes, PFAS, and polyurethane packaging materials; 8. Update the CAS No for beryllium oxide, tetrachlorobenzene and their isomers; 9. Delete the CAS number for alkyl phenol; 10. Add remark to the list of requirements for other special substances (Table 2); <p>二、 List of substances with other special requirements;</p> <ol style="list-style-type: none"> 1. Adding control limits for halogenated plastics or polymers in packaging materials; 2. Remove triphenyl phosphate from the list of prohibited substances V-G; <p>三、 List of Controlled Substances:</p> <ol style="list-style-type: none"> 1. Add level 3 controlled substances PFBS, boron and its compounds, manganese and its compounds, hydrogen cyanide, bisphenol B, isodecyl diphenyl phosphate, Esters, tris (butoxyethyl) phosphate, trioctyl phosphate, triethyl phosphate, tert-butylphenylene diphenyl phosphate, Phosphate phenyl (di-tert-butylphenyl) ester (DBPP); 2. Table 3 Supplementary Notes (3)}Remarks; <p>四、 Update REACH SVHC list and reduction plan;</p> <p>五、 Update the detailed reference laws and regulations.</p>	Lin Wang	KS Dong
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Foreword

The environmental protection of product has gradually become an influential factor to effect the global economy, and which is also the direction of electronic industry. As for our company, we have communicated about the control of dangerous matters related to environmental protect technology with several world famous companies. So in order to follow the related laws/rules and manufacture the excellent green products, our company establish this technology standard .

BizLink Green Concept:

Eliminating and preventing environmental pollution.
 Abiding by and enforcing environmental laws and regulations.
 Actively spreading the idea of environmental protection and being the green messenger of the environment.
 Contributing to the protection of the environment.

1.Purpose:

This standard refers to some customers' newest environmental protection standards such as SS-00259 (SONY), H00594 (Microsoft), ENV0424 (DELL) and the relevant laws and regulations like EU ROHS, REACH, POP etc. It defines banned substances, Substances planned to be abolished, substances outside the scope of the object in parts, equipment, etc of a BizLink product in order to Preventing their mixture to BizLink products Abiding by and enforcing environmental laws and regulations. Protecting the environment of earth. Achieving the mitigation of impacts on ecosystems.



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2.Scope:

The products applicable to BizLink (XY & HZ, KS, XM, TY, JY, BC,TN) for environmental protection control and the following parts and materials constituting the finished product.

- Semi-manufactures, Components. Body parts, Printed circuit boards. Packaging materials. Packaging components.
- Accessories(remote, mouse, AC adopters, and other accessories with which you can use products)
- Auxiliary materials (tape, welding material, binder, cleaning agent, etc.)
- Print. Operating instructions, product and parts related supplementary instructions, etc.
- Packaging materials that parts suppliers used for delivery and protection (wooden frames, brackets, rails, levers, bags, cushioning materials, fixtures, sheets, ropes, cardboard boxes, tape, bundles, labels, printing ink and paints, etc).

3.Terms and definitions:

3.1 **The Environment Controlled Substances:** Among the substances contained in parts and devices:

“The Environment Controlled Substances” are the ones which BizLink judges that “They have remarkable impacts on both humans and the global environment.”

3.2 **Management Levels:**The following three levels are used to managing:

- | | | |
|-------|------------|--|
| 3.2.1 | Level1 | It should be presence banned immediately for use in parts and materials at this level from the substances to their usages. |
| 3.2.2 | Level 2 | Once the deadline is coming,the substances will be classified at level 1.The use of substances and their uses to be grasped by BizLink prior to this date; |
| 3.2.3 | Level 3 | It is not currently prohibited, in the future considering the rise to level 2, BizLink must grasp the use of substances and their related uses. |
| 3.2.4 | Exceptions | At present, laws and regulations do not explicitly prohibit, and customers do not require the use of control, so it is allowed to use. |

3.3 **Present:**“Present” is a situation in which a substance is added to, blended with, fills up, Or adheres to the parts or devices employed in products, or the materials used for the parts or devices, no matter whether the situation is intentionally created or not.(when a substance is unintentionally contained in , or added to a product in a processing process, this situation is also

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regarded as present).

- 3.4 **Impurity:** Impurity is a substance that including the following two types:One generated in a natural material,which cannot technically be removed in a refining process totally);and another generated in a synthesis process, the total removal of which is technically impossible. Additionally, in order to distinguish it from the main raw material, when a substance called "impurity" is used in order to change the properties of the material, it is also treated as "Intentional added".
- 3.5 **Homogeneous Material:** A homogeneous material is made up of one or more substances (e.g. an alloy is a homogeneous material which is made up of a number substances). homogeneous material means a material that cannot be mechanically disjointed into different material. Homogeneous material consist a uniform composition or phase and include plastic,alloys,finishes,glass,ceramics,etc.
- 3.6 **Plastics:** Plastics are materials or raw materials that synthesize polymeric substances,such as the following articles: fiber,film, adhesive tapes, molded products, products made of synthetic rubber, plastics made from raw materials of plant origin and binder.When a natural resin is synthesized with any one of the above articles, the synthetic substance is a plastic.
- 3.7 **Halogen :** The element in VIIA of periodic table of elements , it contains F, Cl, Br, I and At .
- 3.8 **Presence banned:**(1)The concentration of a substance in the material is prohibited from exceeding the allowable limit;(2)Substances which do not set a limit are prohibited if information is available by some means(such as intentional additions to internal processes, upstream of the supply chain, and material testing and analysis if necessary).
- 3.9 **ppm:**A unit of concentration indicating the content of a substance, 1/1000000
- 3.10 **Intentional added:**In order to achieve specific characteristics, appearance, properties, attributes, and quality, by consciously adding, filling, mixing, and attaching,make substances remain in the parts and components as well as in the materials it uses.
- 3.11 **Content threshold:**The maximum allowable value of the content or concentration of substances contained in parts or materials.
- 3.12 **Date of Prohibition Of Supply:** This indicates the deadline which parts and materials are prohibited from supplying to BizLink.

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4. Management Standards For Environment-Related Substances To Be Controlled:

Table 1 List of presence banned substances

Table 1 listed Substances are presence banned substances, in specified uses / materials it is prohibited to contain more than the established content threshold, and substances without a specified content threshold are completely prohibited. Material with no marked exceptional use at the management level has no exceptional use. (Please refer to the description of 3.8 in this standard about the definition of "Presence banned")

Item	Presence banned substance	Management Levels	Applicable use / material	Content threshold (Homogeneous material)	CAS NO.
1.	★Cadmium and its compounds	1	Plastic, paint, ink, process flux, cleaning agent, etc.	5ppm	-
		1	Solder (including tin paste)	20ppm	
		1	Glass, ceramics, other metals	30ppm	
		1	Packing material	Refer to 5.2	
2.	★Lead and its compounds	1	Plastic, paint, ink, etc.	50ppm	-
		1	Solder, Electroless electroplating film	500ppm	
		1	Other metals	100ppm	
		1	Packing material	Refer to 5.2	
3.	★Mercury and its compounds	1	All application	Banned	-
		1	Packing material	Refer to 5.2	
4.	★Hexavalent Chromium compounds	1	All application	Banned	-
		1	Packing material	Refer to 5.2	
5.	★PBBs	1	All application	Banned	-
6.	★PBDEs	1	Flame retardants	Banned	-
7.	★DEHP	1	Plasticizer, etc.	750ppm	117-81-7
8.	★DBP	1	Plasticizer, etc.	750ppm	84-74-2
9.	★BBP	1	Plasticizer, etc.	750ppm	85-68-7
10.	★DIBP	1	Plasticizer, etc.	750ppm	84-69-5
11.	DINP+DIDP+DNOP	1	Excluding wire(cables) and connectors	1000ppm	-
12.	DBP+BBP+DIBP+DEHP	1	Plastic Material	1000ppm	-
			Packing material	Banned	-

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13.	Sum of all the phthalates	1	Packing material	Banned	Table V-A
14.	Specific phthalates	1	All application	900ppm(Individual)	Table V-A
15.	Nickel and its compounds	1	Various uses of organonickel compounds	1000ppm	-
		1	Exposed parts of external modules and components that are prone to direct contact with skin for long or short periods of high frequency	Banned	
		Exception	All other application	/	
16.	Arsenic and its compounds	1	Other applications except semiconductors, copper foil and PCB boards	Banned	1303-28-2 1327-53-3 7440-38-2 15606-95-8
17.	PCB	1	All application	Banned	-
	PCT	1	All application	Banned	-
	PCN(CI≥1)	1	All application	Banned	-
18.	SCCP (C10-13)	1	All application	Banned	85535-84-8
19.	MCCP (C14-17)	1	All application	Banned	85535-85-9 198840-65-2 1372804-76-6
20.	LCCP (C18-30)	1	All application	1000ppm	85422-92-0 63449-39-8 85535-86-0 61788-76-9
21.	Pentachlorophenol and(PCP)	1	Wood material	Banned	87-86-5
		1	All other application	1000ppm	
22.	TBBPA	1	All application	Banned	21850-44-2 79-94-7 30496-13-0
23.	Brominated dioxins furans and dioxins furans.	1	Pollutants after product combustion	Banned	-
24.	Asbestos	1	All application	Banned	Table V-B
25.	HBCDD	1	All application	Banned	Table V-C

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26.	Tributyl tin (TBT) , Triphenyl tin (TPT) and Tributyl tin oxide	1	All application	Banned (Note 5)	-
27.	Dibutyltin (DBT) compounds	1	All application	Banned (Note 5)	818-08-6
28.	Diocetyl tin (DOT) compounds	1	All application	Banned (Note 5)	870-08-06 3648-18-8
29.	Other organotin compounds	1	All application	Banned (Note 5)	-
30.	Specific azo compounds	1	Applicable for continuous contact with the human body part of the product;	Banned	Table V-D
31.	Formaldehyde	1	Textile and leather materials	75ppm	50-00-0
			Wood material	Banned	
32.	Polyvinyl chloride (PVC)and its' blends	1	Package, label, wire strap, heat shrink tube, flat flexible wire, insulation board,Decorative panels and sheets,coating films that come into contact with the product during production, packaging and transportation.	Banned	9002-86-2
			Exception	All other application	
33.	Beryllium and its compounds	1	All application(In addition to electrical bonding applications of ceramics and beryllium copper in electronic components, such as springs, connectors, EMI gaskets)	1000ppm	-
			Beryllium oxide	Banned	1304-56-9
34.	Perfluorooctane sulfonate (PFOS), its salts and related substances	1	All application	Banned	-
35.	Perfluorooctanoic acid (PFOA) , its salts and derivatives	1	All application	Banned	Table V-E
36.	Methoxychlor	1	All application	Banned	72-43-5 30667-99-3 76733-77-2 255065-25-9 255065-26-0

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					59424-81-6 1348358-72-4
37.	Long chain perfluoroalkyl carboxylate (LCPFAC) and perfluoroalkyl sulfonate chemical substances	1	A material used for surface coating	Banned	TableV-I
38.	Perfluorhexyl sulfonic acid and its salts and Related Substances (PFHxS)	1	All application	Banned	355-46-4
39.	Perfluorohexanoic acid and its salts and related substances (PFHxA)	1	Insulation materials, seals, semiconductors, surfactants, etc.	Banned	307-24-4
40.	Long-chain (C9-C21) perfluorocarboxylic acids (PFCAs) and their salts and related substances	1	All application	Banned	-
41.	PFOSF	1	All application	Banned	307-35-7
42.	Perfluoroheptanoic acid (PFHpA)	1	All application	Banned	375-85-9
43.	PAHs	1	All accessible plastic or rubber parts; Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity	Banned	Table V-F
44.	DMF	1	Application including Fungicides, desiccant,	Banned	624-49-7
45.	Radioactive Substances	1	All application	Banned	-
46.	Specific organophosphate	1	All application	Banned	Table V-G
47.	Triglyme	1	All application	Banned	112-49-2
48.	Cobalt dichloride	1	All application	Banned	Table V-H
49.	EPS	1	Packing material	Banned	-
50.	Perchlorate	1	All application	Banned	14797-73-0

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51.	BNST	1	All application except additives in rubber	Banned	68921-45-9
52.	Pentachlorobenzene	1	All application	Banned	608-93-5
53.	Hexachloro benzene	1	All application	Banned	118-74-1
54.	Red phosphorus/ yellow phosphorus	1	Application of flame retardant in plastics PCB and other materials	Banned	7723-14-0 12185-10-3
55.	Other chlorine flame retardants	1	PCB and plastic larger than 25g	1000ppm	-
		Exception	All other application	/	
56.	Other bromine flame retardants	1	PCB and plastic larger than 25g	1000ppm	-
		Exception	All other application	/	
57.	Selenium and its compounds	1	Plastics, pigments, inks, coatings, catalysts, etc.	1000ppm	-
		Exception	All other application	/	
58.	Monohalogenated aromatic substance	1	Capacitor	500ppm	-
59.	Multi halogenated aromatic substances	1	Capacitor	50ppm	-
60.	Nonylphenol and its compounds	1	All application	Banned	Table V-K
61.	4-nitrobiphenyl	1	All application	Banned	92-93-3
62.	Chlorinated hydrocarbons	1	All application	1000ppm	-
63.	Bisphenol A	1	Cables/parts/products in direct contact with skin for a long time	Banned	80-05-7
			All other materials	1000ppm	
64.	UV-320	1	Plastics, printing ink, adhesives, etc	Banned	3846-71-7
65.	UV-328	1	Lubricants, adhesives, tapes, UV absorbers for plastics, etc	Banned	25973-55-1
66.	UV-327	1	All application	Banned	3864-99-1
67.	UV-350	1	All application	Banned	36437-37-3
68.	Boric acid	1	Packing material	1000ppm	10043-35-3
		Exception	All other application	/	
69.	2,4,6-tertiary butyl-phenol	1	Hydraulic oil, fuel and lubricating oil, antioxidant additives	Banned	732-26-3
70.	Hexachlorocyclohexane and its isomers	1	All application	Banned	-

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71.	Acrylonitrile	1	All application	1000ppm	107-13-1
72.	POPs Regulation substance I	1	All application	According to laws and regulations (Note 6)	-
73.	REACH Appendix 17 restricted substances	1	Restricted application specified by law	According to laws and regulations (Note 6)	-
		Exception	Other application than statutory restrictions	/	
74.	Dimethylformamide	1	All application	Banned	68-12-2
75.	Dichlorotoluene ethe	1	All application	Banned	542-88-1
76.	DBB	1	All application	1000ppm	75113-37-0
77.	Tetrachlorobenzene and its isomers	1	All application	Banned	634-90-2 634-66-2 935-95-5 4901-51-3
78.	Musk xylene	1	All application	Banned	81-15-2
79.	hexachlorobutadiene	1	All application	Banned	87-68-3
80.	TDBPP	1	Textiles for skin contact	Banned	126-72-7
81.	Cobalt and Cobalt compounds	1	Products with long time skin contact	Banned	-
82.	Latex	1	Appearance mechanism parts	Banned	-
83.	Halogenated diphenyl methane	1	All application	Banned	99688-47-8 81161-70-8 76253-60-6 99788-47-8
84.	Isopropyl triphenyl phosphate(PIP 3:1)	1	All uses (except lubricants and lubricating esters)	Banned	68937-41-7
85.	Alkyl phenol	1	Additives in detergents, fuels, lubricants and polymers	Banned	27193-28-8 9002-93-1
86.	Diphenyl , ether octabromide derivatives	1	All application	1000ppm	32576-61-7 32536-52-0
87.	Methyl chloroform	1	All application	Banned	74552-83-3
88.	Phenol, n-methyl-	1	All application	10ppm	106-44-5 108-39-4 1319-77-3
89.	Triclosan	1	All application	Banned	3380-34-5

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90.	Benzidine-based dyes and its salts	1	All application	Banned	117-33-9 65150-87-0 68214-82-4 72379-45-4 92-87-5 531-85-1 573-58-0 1937-37-7 2302-97-8 2429-73-4
91.	Trichlorobenzene	1	All application	Banned	120-82-1
92.	Benzylmercury and its compounds	1	All application	100ppm	62-38-4 103-27-5 13302-00-6 13864-38-5 26545-49-3
93.	DMAC	1	All application	1000ppm	127-19-5
94.	GHG (HFC / PFC / SF6)	1	All application of process materials, etc.	Banned	-
95.	ODS(Reference to the latest list of Annex Substances to the Montreal Agreement)	1	All application of process materials, etc.	Banned	-
96.	VOCs(Detailed list refers to Table V-H)[Note 2]	1	All application of process materials, etc.	1000ppm	-
97.	N-hexane	1	All application of process materials, etc.	Banned	110-54-3 92112-69-1
98.	Cyclohexane	1	All application of process materials, etc.	1000ppm	110-82-7
99.	Benzene	1	All application of process materials, etc.	Banned	71-43-2
100.	Trichloroethylene	1	All application of process materials, etc.	Banned	79-01-6
101.	Metachloroethylene	1	All application of process materials, etc.	Banned	630-20-6
102.	Dichloromethane	1	All application of process materials, etc.	Banned	75-09-2
103.	Phosphorus	1	It is forbidden to use in degreasing and coating processes of metals.	Banned	-
104.	1-bromopropane	1	All application of process materials, etc.	100ppm	106-94-5
105.	Dichloroethane	1	Cleaning solvent	Banned	1300-21-6
106.	Bromopropane	1	Cleaning solvent	Banned	75-26-3
107.	N-methylpyrrolidone	1	All cleaning agents and degreasing agents in the manufacturing	Banned	872-50-4

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			process,ect.		
108.	Ethylene glycol ether	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	110-80-5
109.	Ethylene glycol ether acetate	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	111-15-9
110.	Cyclohexanone	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	108-94-1
111.	Ethanolamine	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	141-43-5
112.	Methanol	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	67-56-1
113.	Perchloroethylene	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	127-18-4
114.	Carbon tetrachloride	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	56-23-5
115.	Ethylene glycol butyl ether	1	All cleaning agents and degreasing agents in the manufacturing process,ect.	Banned	111-76-2
116.	decaBDE	1	Flame retardants etc.	Banned	1163-19-5
117.	PCTP	1	Rubber industry	1000ppm	133-49-3
118.	1, 3-propane sulfolactone	1	All application	1000ppm	1120-71-4
119.	ethylene thiourea	1	Mainly used for curing neoprene rubber and other rubber	1000ppm	96-45-7
120.	TNBP	1	All application	1000ppm	126-73-8
121.	DBDPE	1	All application	Banned	84852-53-9
122.	Obtain clones (including all their trans and cis isomers and their combinations)	1	All application	Banned	13560-89-9 135821-74-8 135821-03-3
123.	1, 4-dioxane	1	All application	Banned	123-91-1
124.	3,4,9, 10-perylene	1	All application	Banned	81-33-4

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	tetraformyl diimide				
125.	EHDPP	1	All application	1000ppm	1241-94-7
126.	2, 4-dinitrotoluene	1	All application	Banned	121-14-2
127.	Diethylene glycol monomethyl ether	1	Used for paint, paint remover, cleaning agent, etc	1000ppm	111-77-3
128.	Diethylene glycol butyl ether	1	All application	1000ppm	112-34-5
129.	Dihydroxybenzotriazole carbonic acid	1	All application	Banned	-
130.	Halogenated dioxin and halogenated furan	1	All application	Banned	
131.	Mineral oil aromatic hydrocarbons (MOAHs) containing 1 to 7 aromatic rings	1	Printing packaging materials (labels, cartons, color boxes, etc.)	Banned	Table V-M
132.	Mineral oil saturated hydrocarbons (MOSHs) with 16 to 35 carbon atoms	1	Printing packaging materials (labels, cartons, color boxes, etc.)	Banned	Table V-M
133.	Polyvinylidene chloride(PVDC)	1	Packing material	Banned	9002-85-1
134.	2-ethylhexyl diphenyl phosphate	1	External plastic parts (for use as additive flame retardants and flame retardant plasticizers)	1000ppm	1241-97-7
135.	Isocyanate	1	All application (except prolonged contact with human body)	1000ppm	Table V-J
			Material that comes into contact with the human body for a long time	Banned	
136.	Lead carbonate	1	Paint, ink	Banned	598-63-0
137.	Lead sulfate	1	Paint, ink	Banned	7446-14-2
138.	Oxidized decomposable plastic	1	Packing material	Banned	-
139.	Xylene diisocyanate	1	Mixtures (foams, adhesives, paints, synthetic leather, etc.)	1000ppm	26447-40-5
140.	NEP	1	All application	3000ppm	2687-91-4
141.	N,N'-diphenyl-p-phenylenediamine	1	All application	Banned	Table V-L
142.	P-tert-octyl phenol	1	Surfactant binder Rubber vulcanizing agent	Banned	140-66-9
143.	Bisether Diethylene glycol dimethyl ether	1	All applications in the process	Banned	111-96-6
144.	Lead chromate	1	All application	1000ppm	7758-97-6

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145.	Pentazinc chromate octahydroxide	1	All application	1000ppm	49663-84-5
146.	Potassium hydroxyoctaoxidizinc atedichromate	1	All application	1000ppm	11103-86-9
147.	Strontium chromate	1	All application	1000ppm	7789-06-2
148.	Bis(2-ethylhexyl) tetrabromophthalate	1	Retardant	Banned	26040-51-7
149.	Chlorinated organic solvent	1	All applications in the process	Banned	75-35-4 76-01-07 79-34-5 67-66-3 71-55-6 67-72-1 108-90-7 100-44-7 79-00-5
150.	Chloroethylene (monomer)	1	All applications in the process	Banned	75-01-4
151.	PFAS	1	Packing material	Banned	-
152.	SDPA	1	Antioxidant for adhesives, resins, polymer coatings, paper products	Banned	122-39-4
153.	Toluene	1	Application in adhesives and spray paint	1000ppm	108-88-3
			All uses in the process	Banned	
154	Polyurethane	1	Packing material	Banned	51852-81-4
155.	Phosphine	1	Wires, cables	Banned	7803-51-2 998-40-3
156.	Perfluorodecanoic acid, its sodium and ammonium salts	1	Paints, coatings, inks	1000ppm	335-76-2 3830-45-3 3108-42-7
157.	10-ethyl-4,4-dioctyl-7-oxo-8-oxo-3,5-dithio-4-tintetradecanoate 2-ethylhexyl ester (DOTE)	1	All application	1000ppm	15571-58-1
158.	10-Ethyl-4,4-dioctyl-7-oxo8-oxo-3,5-dithio-4-tintetradecanoate 2-ethylhexyl ester (DOTE) and 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-Reaction of 2-oxoethyl]thio]-4-octyl-	1	All application	1000ppm	-

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	7-oxo-8-oxo-3,5-dithio-4-tintetradecanoate 2-ethylhexyl ester (MOTE) product				
159.	Reaction products of 1,3,4-thiadiazole-2,5-dimercapone, formaldehyde and branched and linear 4-heptylphenol	1	Adhesives, paint additives, surfactants	1000ppm	1471311-26-8 93925-00-9
160.	Ethylene glycol methyl ether acetate	1	All cleaning agents, degreasing agents, etc. used in the manufacturing process	Banned	110-49-6
161	Octamethylcyclotetra sil oxane (D4); Decamethylcyclopent as iloxane (D5); Dodecamethylcyclohex asiloxane (D6):	1	All application	1000ppm	D4:556-67-2 D5:541-02-6 D6:540-97-6

Remark about table 1:

- 1). The labeled ★ substance are RoHS2.0 controlled items. Those with exempted uses are controlled by exemption requirements. The list of common exemptions refers to Appendix I.
- 2). Please refer to Appendix II, for recommended testing methods for partially banned substances and adopt other test methods approved by the customer.
- 3). This table does not list all uses and examples of use. If there is an unknown matter, please contact the sender.
- 4). The substances in the regulations which are separately listed in this standard need to be executed according to the restricted application and thresholds listed separately.
- 5). Tin concentration by metal conversion is available.
- 6). The website of the regulation is referred to below:

Regulation list name	Website
POPs(I) list	http://ec.europa.eu/environment/archives/pops/index_en.htm
REACH List of restricted substances	https://echa.europa.eu/substances-restricted-under-reach
PFAS Regulations website	https://echa.europa.eu/da/hot-topics/perfluoroalkyl-chemicals-pfas https://comptox.epa.gov/dashboard/chemical-lists/PFASOECD

- 7). Montreal Protocol Annex Material List Regulations Reference Website:
<https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>

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8). All manufacturers that use inks, cleaning agents, coatings and adhesives in the production and processing processes must meet the national standards GB 30981-2020 (limitation of hazardous substances in industrial protective coatings) and GB 33372-2020 (limitation of volatile organic compounds in adhesives) GB 38508-2020 (Limits for Volatile Organic Compounds in Cleaning Agents), GB 38507-2020 (Limits for Volatile Organic Compounds in Inks) for VOC limit control requirements.

Table 2 List of other special requirements substance

The substances listed in Table 2 are restricted only for specific application and materials, and for other application other than applicable application/materials, they are not controlled unless listed in Table 1 and Table 3. Halogen-free, CA65 and TCO requirements will be proposed by BizLink separately.

List of other special requirements substance				
item	Substance	Applicable uses/materials	Content threshold (homogeneous material)	CAS NO.
1.	Antimony trioxide	Specific halogen-free materials (For HQ class B)	100ppm	1309-64-4
	Antimony and its compounds (except antimony trioxide)	Customer specific requirements (For HQ class B)	700ppm	7440-36-0 etc.
2.	Chlorine (Cl)	Specific halogen-free materials	900ppm(Note 1)	-
		Bleaching application of packaging Materials	Banned	
3.	Bromine (Br)	Specific halogen-free materials	900ppm(Note 2)	-
4.	Total content of chlorobromide	Specific halogen-free materials	1500ppm	-
5.	TOTM	Materials with TCO Certified requirements	Banned	3319-31-1
6.	TCO list of Benchmark less than 2 and Sunset date expired plasticizer	Materials with TCO Certified requirements	Banned	-
7.	Halogenated plastics or polymers (ex: PVC, TFE, FEP, ect.)	Packing material	Banned	-

Table 2 Remarks:

- 1) When the content is ≥ 400 ppm, an investigation statement on the source of chlorine (Cl) must be provided, When the content is ≥ 500 ppm, a short chain chlorinated paraffin test report is required.
- 2) When the content is ≥ 230 ppm, an investigation statement on the source of bromine (Br) must be provided, When the content is ≥ 100 ppm, a hexabromocyclododecane test report is required.

Table 3 List of controlled substance

The substances listed in Table 3 belong to substances not prohibited by BizLink. They are new reviews and planned

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limits for future controlled substances projects, and can not be avoided or replaced temporarily in some materials/uses. If the content of the homogeneous material exceeds the limit specified in this table, it is necessary to ensure that BizLink can grasp the information of the content, such as the name, content and use of the material.

Item	Substance	level	Declared limitation	CAS NO.
1.	REACH SVHC	3	1000ppm (Note 2)	-
2.	Antimony and its compounds	3	1000ppm	
3.	Bismuth and its compounds	3	intentional added	-
4.	Magnesium and its compounds	3	intentional added	-
5.	Nickel and its compounds	3	intentional added	-
6.	Other chlorine and its compounds	3	1000ppm	-
7.	Other bromine and its compounds	3	1000ppm	-
8.	PVC	3	1000ppm	9002-86-2
9.	Phosphorus and its compounds	3	intentional added	-
10.	Gold and Its compounds	3	intentional added	-
11.	Tin and Its compounds	3	intentional added	-
12.	Perfluorobutane sulfonic acid (PFBS) and related substances	3	1000ppm	25628-08-4 34454-97-2 375-73-5 375-72-4 29420-49-3
13.	Halogenated flame retardants (except bromine and chlorine)	3	intentional added	-
14.	Boron and its compounds	3	intentional added	-
15.	Mica	3	intentional added	-
16.	RoHS Lead Exemption Program	3	1000ppm	-
17.	InP	3	intentional added	22398-80-7
18.	Methanol (components, substances and other uses in the manufacture process)	3	intentional added	67-56-1
19.	4,4' -dihydroxybenzophenone	3	1000ppm	611-99-4
20.	Perfluorinated and polyfluoroalkyl (PFAS) substances (except for numbers 34-42 in Table 1)	3	intentional added(Note 4)	PFAS Website
21.	Bisphenol S, Bisphenol F、 Bisphenol B	3	1000ppm(Note 3)	620-92-8 2467-02-9 1333-16-0 80-09-1

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				77-40-7
22.	Manganese and its compounds	3	intentional added	-
23.	Hydrogen cyanide	3	intentional added	74-90-8
24.	Isodecyl diphenyl phosphate	3	1000ppm	29761-21-5
25.	Tris(butoxyethyl) phosphate	3	1000ppm	78-51-3
26.	Trioctyl phosphate	3	1000ppm	78-42-2
27.	Triethyl phosphate	3	1000ppm	78-40-0
28.	Tert-Butylbenzene Diphenyl Phosphate	3	1000ppm	56803-37-3
29.	Di-tert-butylphenyl phosphate (DBPP)	3	1000ppm	65652-41-7

Remark about table 3.

1)Develop the Hazardous substances reduction Plan for class 3 controlled substances, as detailed in the attached documentation.

2)Excluding substances that have been independently incorporated into this standard. The control limit value of SVHC is the content of the parts defined by REACH regulation. When new substances are added to SVHC, if they exceed the content limit, they should be notified to BizLink in advance, and a reduction plan should be worked out. (The supplier will be investigated separately after some regulations of REACH SVHC are updated.)

REACH SVHC reference regulations website:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

3)Various applications, such as epoxy resin, polycarbonate resin and other plastics.

4)When the F content is greater than ND, a statement of investigation from the F source or a statement of no PFAS content or a PFAS test report must be provided;

When exceeding 600ppm, a PFOA/PFOS test report is required.

5.Additional rules for packaging materials:

5.1 Packaging materials:Packing material refers to the raw materials to processed products from producers to users or consumers, by loading, protection,applied,ship,delivery of all kinds of materials of products.

5.2 According to the law regulation, the packing material need accord with the following condition ,except the regulation specified in clause 4 table 1.

Table 4 Additional rules for packaging materials

Heavy metals (mercury, cadmium, lead, and hexavalent chromium)	
Level	Targets

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Level 1	<p>·The articles used for product packages and packages for part transportation(e.g. handle,wooden frame,box and bracket,guide rail,lever,roll box,bag,cushioning material, fixing apparatus,the thin plate,rope,hard carton,coating,ink,adhesive tape, label, rubber pad)</p>
<p>Allowable concentrations: ·“Less than 50 ppm” is determined as the allowable total-concentration of four heavy metals(Hg, Cd, Pb, and Cr6+)contained in each part, ink, or paint that constitutes a package. But in plastic(rubber) part ,the allowance concentration of Cd is less than 5ppm. (The main plastic part : handle, plastic bag, cushion, rope, box, bracket, lead rail, adhesive tape, lever etc.)</p>	
<p>Test requirement: 1. As for chrome,firstly we should inspect the total chrome,to know whether the total concentration of the 4 element exceed 50ppm.and then precondition with the cadmium and lead together,the result is the concentration of the total chrome. 2.When the total concentration of four element exceed 50ppm, we need make sure the total concentration of cadmium, lead, and mercury don't exceed 50ppm, and make sure whether the chrome is Cr6+. At last ,we should make sure that there is no Cr6+ existed .</p>	

6.Special specification and requirement:

- 6.1 For especially requests from customer which not contained in the standard, BizLink will regulate and require them on related drawing or parts procedure.
- 6.2 The allowable content of the above environmental controlled substances is executed according to the company standard if not required by the customer,If the customer has a special request, it should be managed according to the customer’s special request. This part of the requirement is confirmed by the BizLink individually with the manufacturer (E. g CA65, HF, No phthalate and TCO certification requirements)
- 6.3 For environmentally harmful substances controlled by the ROHS of the EU (including the new added 4 phthalates) , the manufacturer must provide a report on the chemical testing of homogeneous materials by a third-party laboratory .For the HF and NP material,the supplier need provide the test report of halogen and phthalates in addition. And this laboratory or inspection organization is required to pass ISO/IEC17025 laboratory quality certification or a local accredited laboratory. The list of BizLink accredited laboratories is shown in Appendix III, (the test report does not allow mixed testing) .The test report should be updated frequency at least once a year to demonstrate that the parts and materials provided to BizLink meet the ROHS control requirements of this standard.

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- 6.4 Microsoft's test method for plastic Phthalates is EN14372:2004. For the concrete operation, the BizLink must be managed in accordance with other application rules and regulations;
- 6.5 For halogen-free compliance testing reports, only parts / products containing plastics are required to be tested, Halogen-containing testing isn't required for components / products made only of composite or ceramic products, unless these components / products are known to contain halogen risks. Known risks with halogen should be notified to BizLink; before the product is shipped.

7. Appendix tables list:

Appendix I: RoHS exemption list (list common exemptions only)

Exemption Number	Exemption items	Scope and duration of application
6(a)	As an alloy element, lead content in steels and galvanized steels used for mechanical processing does not exceed 0.35%.	- The in vitro diagnostic medical devices in Category 8 products expire at 2023/7/21. - Category 9 industrial monitoring equipment and Category 11 equipment expire at 2024/7/21.
6(a)-I	Lead is one of the alloying elements of steel for processing purposes, and the content does not exceed 0.35%	All categories: July 21, 2024
6(b)-I	When the source is recycled leaded aluminum scrap, the lead content can reach up to 0.4%	All categories: 12 months after announcement
6(b)-II	Aluminium alloys used for processing purposes with a lead content not exceeding 0.4%	All categories: 18 months after announcement
6(b)-III	When the source is recycled lead-containing aluminum waste, the content of lead in aluminum casting alloy is less than 0.3%	All categories: July 21, 2026
6(b)-IV	In the processing of aluminum alloy as an alloying element of lead, used in a class of large household appliances in the valve, the content is less than 0.4%	Category I large household appliances: December 31, 2024
6(c)	Lead content in copper alloys does not exceed 4% by mass.	All categories: July 21, 2026
7(a)	Lead in high melting point solders (e.g., more than 85% lead in lead-based alloys)	All categories (excluding applications in Item 24 of Appendix III) : July 21, 2024
7(c)-I	Lead contained in glass or ceramic materials (other than ceramic media in capacitors) in electronic and electrical components, such as piezoelectric devices or glass/ceramic composite components	All categories: July 21, 2024

Appendix II: Reference test method for controlled substances

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Substance	Test method	Test instrument
Cadmium and its compounds	IEC62321-5: 2013	ICP-OES
Lead and its compounds	IEC62321-5: 2013	ICP-OES
Mercury and its compounds	IEC62321-4: 2013+A1: 2017	ICP-OES
Hexavalent Chromium compounds	IEC62321-7-2: 2017, IEC62321-7-1: 2015, IEC62321-5: 2013	UV
PBBs	IEC62321--6: 2015	GC-MS
PBDEs	IEC62321--6: 2015	GC-MS
Halogen (Chlorine and Bromine)	EN 14582:2016, IEC 62321-3-2-2020	IC
phthalates	EN14372, IEC62321-8:2017	GC-MS PY/TD-GC-MS
PAHs	AfPS GS 2019:01 PAK, IEC 62321-10	GC-MS
P	GZTC CHEM-TOP-205-01、EPA 3050B/3051A/3054	GC-MS/ICPOES PY/TD-GC-MS

Appendix III: List of BizLink Accredited Laboratories

NO.	BizLink Accredited Laboratories
1	SGS
2	Intertek
3	BV
4	CTI
5	PONY
6	TUV
7	EMTEK
8	State or provincial and municipal entry-exit inspection and quarantine bureaus
9	Other testing organizations must confirm with BizLink that they are correct before accepting it.

Appendix IV: Examples of laws and regulations referred to in this standard

EU · ROHS2.0 Directive 2011/65/EU and its revised Directive(EU)2015/863
EU · REACH regulation (EC) No.1907/2006 and ANNEX XVII (EC) No.2021/1297
China · Measures for the Administration of the Restricted Use of the Hazardous Substances Contained in Electrical and Electronic Products

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Japan · Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances (Class 1), etc.
EU · EU POPs (EC) No 850/2004 Annex I0/2004
EU · WEEE directive 2002/96/EC and EU: EU directive 1999/45/EC .
EU · Directive on Packaging and Packaging Waste (94/62/EC). Etc.
Argentina · Sections 26, 184 and decision 14/2007 of Portable electric energy regulations.
EU · EU directive (2006/842/EC)
Norway · The restriction of using the particular hazardous chemicals
EU · The suggestion of restricting using hazardous substance in Europe.
Japan · Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances (Class 1,2), etc.
Japan · Labour Safety and Health Law, etc.
Germany · The regulations of chemicals prohibiting, (ChemVerbotsV for short)
Denmark · Directive No.289/No.552
Switzerland · Reduction the risk of chemicals ordinance(ORRChem for short)
Norway · Product Regulations
EU · EU directive (EC)No. 2037/2000 and its revised edition
Japan · The laws of protection ozonosphere by controlled the particular substance.
America · The amendment of 1990's cleanness air proposed law
Indonesia · Regulation of the Minister of Industry of the Republic of Indonesia No.33/M-IND/PER/4/2007 dated April 17, 2007
EU · European commission regulation 2009/251/EC
America · New York and other states in the U.S. Regulations on Heavy Metals in Packaging Materials
Canada · Prohibition of Certain Toxic Substances Regulations,SOR2012-285
America · Toxic Substances Control Act (TSCA)
America · Safe Drinking Water and Toxic Enforcement Act of 1986
Russia · EAEU TR 037/2016
France · French Government Decree No. 105 of 2020 "Circular Economy"
Maine, USA · Prohibition of Action for Perfluoroalkyl and Polyfluoroalkyl Substance Pollution

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Appendix V-A: Detailed list of specific phthalates

序号	物质名称	简称	CAS No
1.	Diethyl phthalate	DEP	84-66-2
2.	Di-n-octyl phthalate	DNOP	117-84-0
3.	Diisopentyl phthalate	DIPP	605-50-5
4.	Diisononyl phthalate	DINP	28553-12-0 68515-48-0 71549-78-5
5.	Diisodecyl phthalate	DIDP	26761-40-0 68515-49-1
6.	Bis(2-methoxyethyl) phthalate	DMEP	117-82-8
7.	DI-n-hexyl phthalate	DnHP	84-75-3
8.	Dicyclohexyl phthalate	DCP	84-61-7
9.	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	DHNUP	68515-42-4
10.	Isopentyl pentyl phthalate	-	776297-69-9
11.	DiC6-8 Branched Alkyl Phthalate (Rich in C7)	-	71888-89-6
12.	DI-n-hexyl phthalate	-	68515-50-4 71850-09-4
13.	DI-n-pentyl phthalate-D4	DPP	131-18-0
14.	1,2-benzoic acid-di (branched and straight chain) amyl ester	-	84777-06-0
15.	Di (C6-C6) alkyl phthalate: (decanoyl, hexyl, octyl) ester and 1,2-phthalic acid complex and Dihexyl phthalate content (>0.3%)	-	68515-51-5 68648-93-1
16.	Di(2-propyl heptane) phthalate	-	53306-54-0
17.	Diisooctyl phthalate	DIOP	27554-26-3
18.	Dimethyl phthalate	DMP	131-11-3
19.	Diheptyl phthalate	-	3648-21-3

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20.	Di-n-nonyl phthalate	DNP	84-76-4
21.	Diphenyl phthalate	-	84-62-8
22.	Dipropyl phthalate	-	131-16-8
23.	Bisundecyl phthalate	DUP	3648-20-2
24.	Butyl cyclohexyl phthalate		84-64-0
25.	Dibenzyl phthalate		523-31-9
26.	Cyclohexyl isobutyl phthalate		5334-09-8
27.	1,2-Benzenedicarboxylic acid,2,2-dimethyl-1-(1-methylethyl)-3-(2-methyl-1-oxopropoxy)propyl phenylmethyl ester		16883-83-3
28.	Benzyl isooctyl phthalate		27215-22-1
29.	Bis(methylcyclohexyl) phthalate		27987-25-3
30.	1,2-Benzenedicarboxylic acid,benzyl-C7-9-branched and linear alkylesters		68515-40-2
31.	Diundecyl phthalate, branched and linear		85507-79-5
32.	Diallyl phthalate		131-17-9
33.	Di(tridecyl) phthalate		119-06-2
34.	1,2-Benzenedicarboxylic acid,di-C9-11-branched and linear alkyl esters		68515-43-5
35.	1,2-Benzenedicarboxylic acid,di-C11-14-branched alkyl esters,C13-rich		68515-47-9
36.	1,2-Benzenedicarboxylic acid,heptyl nonyl ester,branched and linear		111381-89-6
37.	1,2-Benzenedicarboxylic acid,nonyl undecyl ester,branched and linear		111381-91-0
38.	Other phthalates		-

Table V-B: Asbestos

Item	Substance	CAS No
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1.	Asbestos	1332-21-4 132207-32-0 132207-33-1
2.	Crocidoliteasbestos	12001-28-4
3.	Chrysotile	12001-29-5
4.	Amosite	12172-73-5
5.	Anthophyllite	17068-78-9
6.	Tremolite	14567-73-8
7.	Actinolite	13768-60-8

Table V-C: HBCDD

Item	Substance	CAS No
1.	HBCDD	25637-99-4
2.	HBCDD	4736-49-6
3.	HBCDD	65701-47-5
4.	HBCDD	138257-17-7
5.	HBCDD	138257-18-8
6.	HBCDD	138257-19-9
7.	HBCDD	169102-57-2
8.	HBCDD	678970-15-5
9.	HBCDD	678970-16-6
10.	HBCDD	678970-17-7
11.	1,2,5,6,9,10-HBCDD	3194-55-6
12.	a-HBCDD	134237-50-6
13.	b-HBCDD	134237-51-7
14.	r-HBCDD	134237-52-8
15.	1,2,5, 6-tetrabromocycloctane	3194-57-8

Table V-D: Detailed list of Specific azo compounds

Doc. Name: Environment Technical Standards		Revision: M0
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Item	Substance	CAS No
1.	4-Aminophenyl benzene	92-67-1
2.	Benzidine	92-87-5
3.	4-Chloro-2-methylaniline	95-69-2
4.	2-Aminonaphthalene	91-59-8
5.	O-aminoazotoluene	97-56-3
6.	2-Methyl-5-nitroaniline	99-55-8
7.	4-Chloroaniline	106-47-8
8.	2,4-Diaminomethoxyanisole	615-05-4
9.	4,4'-Methylenedianiline	101-77-9
10.	3,3'-Dichlorobenzidine	91-94-1
11.	3,3'-Dimethoxybiphenyl	119-90-4
12.	C.I. 37230	119-93-7
13.	3,3'-Dimethyl-4,4'-Diaminodiphenylmethane	838-88-0
14.	2-Methoxy-5-methylaniline	120-71-8
15.	4,4'-Methylene bis(2-chloroaniline)	101-14-4
16.	4,4'-Oxydianiline	101-80-4
17.	4,4'-Thiodianiline	139-65-1
18.	O-Toluidine	95-53-4
19.	2,4-Diaminotoluene	95-80-7
20.	2,4,5-Trimethylaniline	137-17-7
21.	O-Anisidine	90-04-0
22.	4-Aminoazobenzene	60-09-3
23.	2-Naphthylammonium Acetate	553-00-4
24.	Ethyl naphthylamine hydrochloride	612-52-2

Table V-E: Perfluorooctane acid (PFOA) and its salts

Doc. Name: Environment Technical Standards		Revision: M0
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Item	Substance	CAS No
1.	Octanoyl fluoride, pentadecafluoro-	335-66-0
2.	Octanoic acid, pentadecafluoro- (PFOA)	335-67-1
3.	Octanoic acid, pentadecafluoro-, silver salt	335-93-3
4.	Octanoic acid, pentadecafluoro-, sodium salt	335-95-5
5.	Octanoic acid, pentadecafluoro-, potassium salt	2395-00-8
6.	Octanoic acid, pentadecafluoro-, ammonium salt (APFO)	3825-26-1

Table V-F: Polycyclic aromatic hydrocarbons (PAHs)

Item	Substance	CAS No
1.	Benzo[a]anthracene(BaA)	56-55-3
2.	Benzo[b]fluoranthene(BbFA)	205-99-2
3.	Benzo[j]fluoranthene(BjFA)	205-82-3
4.	Benzo[k]fluoranthene(BkFA)	207-08-9
5.	Benzo(a)pyrene(BaP)	50-32-8
6.	Benzo[e]pyren(BeP)	192-97-2
7.	Chrysene(CHR)	218-01-9
8.	Dibenz[a,h]anthracene(DBAha)	53-70-3
9.	Benzo[ghi]perylene(BPE)	191-24-2
10.	Indenol[1,2,3-cd]pyrene(IPY)	193-39-5
11.	Naphthalene(NAP)	91-20-3
12.	Phenanthrene(PHE)	85-01-8
13.	Anthracene(ANT)	120-12-7
14.	Fluoranthene(FLT)	206-44-0 93951-69-0
15.	Pyrene(PYR)	129-00-0 1718-52-1
16.	Acenaphthene	83-32-9

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1 7 .	Acenaphthylene	208-96-8
1 8 .	Fluorene	86-73-7

Table V-G: Specific organophosphorus compounds

Item	Substance	CAS No
1.	Tris(2-chloroethyl) phosphate(TCEP)	115-96-8
2.	Phosphoric acid tris(2-chloro-1-methylethyl) ester (TCPP)	13674-84-5
3.	Fyrol FR 2 (TDCPP)	13674-87-8
4.	Tri-o-cresyl phosphate(TOCP)	78-30-8
5.	Tri (xylene) phosphate (TXP)	25155-23-1
6.	Tri (1-azopropidiny) phosphorus oxide (TEPA)	545-55-1
7.	TCP	1330-78-5
8.	Triphenyl phosphite	101-02-0
9.	Triphenyl phosphate	115-86-6
10.	Bis(2,3-dibromopropyl)-phosphate	5412-25-9
11.	Tris(2,3-dichloropropyl) phosphate	78-43-3
12.	2,2-Bis(bromomethyl)-3-chloropropyl bis(2-chloro-1-(chloromethyl)ethyl) phosphate	66108-37-0
13.	Bis(chloromethyl)propane 1,3-diyltetrakis(2-chloroethyl)bis(phosphate)	38051-10-4
14.	Tris(isobutylphenyl) phosphate	68937-40-6

Table V-H: Cobalt dichloride

Item	Substance	CAS No
1.	Cobalt chloride	7646-79-9
2.	Cobalt(II) chloride 6 hydrate	7791-13-1
3.	Cobalt(III) chloride	10241-04-0

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4.	Cobalt chloride	34240-80-7
5.	Cobalt sulfate heptahydrate	10026-24-1
6.	Cobalt(II) nitrate	14216-74-1
7.	Cobalt sulfate dry powder	13455-64-0

Table V-I: Long chain perfluoroalkyl carboxylate (LCPFAC) and perfluoroalkyl sulfonate chemical substances

Item	Substance	CAS No
1.	Perfluorooctyl iodide(Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-8-iodo-)	507-63-1
2.	Tetrahydroperfluoro-1-decanol(1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-.)	678-39-7
3.	Perfluoro-1-dodecanol(1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-)	865-86-1
4.	Perfluorodecyl iodide(Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo-.)	2043-53-0
5.	1,1,2,2-Tetrahydroperfluorododecyl iodide(Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-12-iodo-.)	2043-54-1
6.	Perfluorodecylethyl acrylate(2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester.)	17741-60-5
7.	1,1,2,2-Tetrahydroperfluorodecyl acrylate(2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecylester)	27905-45-9
8.	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-Pentacosafuoro-14-iodotetradecane(Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-14-iodo-.)	30046-31-2
9.	3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-Pentacosafuorotetradecan-1-ol(1-Tetradecanol,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-.)	39239-77-5
10.	3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-Nonacosafuorohexadecan-1-ol(1-Hexadecanol,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro-.)	60699-51-6
11.	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-Nonacosafuoro-16-iodohexadecane(Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafuoro-16-iodo-.)	65510-55-6
12.	Sodium;2-methylpropane-1-sulfonate(1-Propanesulfonicacid,2-methyl-,2-[[1-oxo-3-[(.gamma.-.omega.-perfluoro-C4-16-alkyl)thio]propyl]amino] derivs.,	68187-47-3

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	sodium salts)	
13.	1,1,2,2-Tetrahydroperfluoroalkyl (C8-C14) alcohol (Alcohols,C8-14, .gamma.-.omega.-perfluoro.)	68391-08-2
14.	Thiols, C8-20, gamma-omega-perfluoro, telomers with acrylamide (Thiols, C8-20, .gamma.-.omega.-perfluoro, telomers with acrylamide.)	70969-47-0

Table V-J: Isocyanates

Item	Substance	CAS No
1.	Isocyanic acid	9016-87-9
2.	Carbonic dichloride	32055-14-4
3.	4,4'-Diphenylmethane diisocyanate	101-68-8
4.	Benzene-1,2,4,5-d4, 3,3'-methy	88077-90-1
5.	Benzene, 1,1'-(methylene-d2)b	215590-71-9
6.	Benzene, 1,1'-(methylene-14	1006610-56-5
7.	methylenediphenyl diisocyanat	26447-40-5
8.	2,4'-METHYLENEBIS(PHENYL ISOCYANATE)	5873-54-1
9.	2,2'-methylenediphenyl diisocyanate	2536-05-2
10.	Benzene,diisocyanatomethyl- (9CI)	1321-38-6
11.	2-methyl-m-phenylene diisocyanate	91-08-7
12.	Benzene, 1,3-diisocyanatomethyl	26471-62-5
13.	4-methyl-m-phenylene diisocyanate	584-84-9
14.	Benzene, 1,3-diisocyanato-5-methyl	14219-05-7
15.	Toluene-d6 2,4-Diisocyanate	1398066-04-0
16.	1-methyl-2,4-bis(oxomethylideneamino)benzene	1346599-79-8

Table V-K: Nonylphenol and its compounds

Item	Substance	CAS No
1.	Nonylphenol	25154-52-3
2.	2-(2-(4-Nonylphenoxy)ethoxy)ethanol	9016-45-9

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3.	4-Nonylphenol	104-40-5
4.	2-(4-Nonylphenoxy)ethanol	104-35-8
5.	2-(2-(4-Nonylphenoxy)ethoxy)ethanol	20427-84-3
6.	POLYOXYETHYLENE(7.5) NONYLPHENYL ETHER	27177-05-5
7.	29-(nonylphenoxy)-3,6,9,12,15,18,21,24,27-nonaoxanacosanol	27177-08-8
8.	2-(2-Nonylphenoxy)ethanol	27986-36-3
9.	2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]ethanol	7311-27-5
10.	POLYOXYETHYLENE(2) NONYLPHENYL ETHER	27176-93-8
11.	NONYLPHENOXYPOLYOXYETHANOL	51938-25-1
12.	isononylphenol-ethoxylate	37205-87-1
13.	26-(nonylphenoxy)-3,6,9,12,15,18,21,24-octaoxahexacosan-1-ol	26571-11-9
14.	4-Nonylphenol polyethoxylate	26027-38-3
15.	2-[2-[2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethanol	34166-38-6
16.	20-(4-nonylphenoxy)-3,6,9,12,15,18-hexaoxaicosan-1-ol	27942-27-4
17.	Nonoxynol 9	14409-72-4
18.	4-Nonylphenol branched ethoxylated	127087-87-0
19.	nonylphenol-ethyleneoxidecondensates	156609-10-8
20.	Nonylphenols (NP)	3050-88-2
21.	Nonylphenol Ethoxylates (NPE)	31631-13-7
22.	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP)	106599-06-8

Table V-L: N,N'-Dimethylphenyl-p-phenylenediamine

Item	Substance	CAS No
1.	N,4-N-bis(2-methoxyphenyl)benzene-1,4-diamine	63338-69-2
2.	N,N'-bis(2-methylphenyl)benzene-1,4-diamine	15017-02-4
3.	N,N'-Bis(methylphenyl)-1,4-benzenediamine	27417-40-9

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4.	N-Tolyl-N'-benzyl-p-phenylenediamine	28726-30-9
5.	N,N'-di-(p-tolyl)-p-phenylenediamine	620-91-7
6.	N-(3-methylphenyl)-N'-(4-methylphenyl)-1,4-phenylenediamine	63302-30-7
7.	N-(2-methylphenyl)-N'-(3-methylphenyl)-1,4-phenylenediamine	63302-32-9
8.	N-(2-methylphenyl)-N'-(4-methylphenyl)-1,4-phenylenediamine	63302-33-0
9.	N,N'-bis(3-methylphenyl)-1,4-phenylenediamine	63302-48-7
10.	N,N'-bis(2,5-dimethylphenyl)-1,4-phenylenediamine	67265-98-9
11.	Styrylated N-phenylaniline	68478-45-5
12.	NMONOMETHYLPHENYLNDIMETHYLPHENYL14PHENYLENEDIAMINE	70290-05-0
13.	N,N'-Bis(2,4-dimethylphenyl)-p-phenylenediamine	76154-76-2
14.	Antioxidant DTPD	68953-84-4
15.	p-phenylenediamine	106-50-3
16.	N-(1-Methylethyl)-N'-phenyl-1,4-phenylenediamine	101-72-4

Item	Substance	CAS No
1.	White mineral oil (petroleum)	8042-47-5
2.	Paraffin waxes (petroleum), clay treated, reaction products with petroleum white mineral oil, stearic acid and triethanolamine	71808-29-2
3.	Mineral oils	8020-83-5
4.	Mineral oil, petroleum residual oils, acid treated	64742-17-2
5.	Light mineral oil	92062-35-6
6.	Mineral Oil	99551-14-1
7.	Mineral Oil, for lubricants	-

Table V-M: Mineral oil

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8. Attached document:

- 8.1. Hazardous substance reduction plan
- 8.2. REACH SVHC list

BEM-1-06-01C
BEM-1-06-02A

